

Formula Sheet

Area, Surface Area and Volume Eqao Sheet

Optimized Formulas

Cube

Surface Area = 6l<sup>2</sup>

Volume = l<sup>3</sup>

Cylinder Optimized

Surface Area = 2(3.14)<sup>2</sup> + 2(3.14)rh<sub>(total)</sub>

Volume = 4(3.14)r<sup>3</sup>

Trigonometry

$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$

$a^2 = b^2 + c^2 - 2bc \cos A$

$A_{\text{total}} = \frac{P_a}{2}$

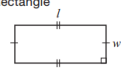
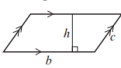
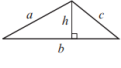
$= 6\pi r^2$

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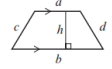

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


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Geometric Figure	Perimeter	Area
<div>Rectangle</div> 	$P = l + l + w + w$ or $P = 2(l + w)$	$A = lw$
<div>Parallelogram</div> 	$P = b + b + c + c$ or $P = 2(b + c)$	$A = bh$
<div>Triangle</div> 	$P = a + b + c$	$A = \frac{bh}{2}$ or $A = \frac{1}{2}bh$

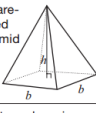
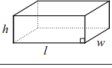
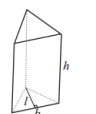
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<div>Trapezoid</div> 	$P = a + b + c + d$	$A = \frac{(a + b)h}{2}$ or $A = \frac{1}{2}(a + b)h$
<div>Circle</div> 	$C = \pi d$ or $C = 2\pi r$	$A = \pi r^2$

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Geometric Figure	Volume
<div>Cylinder</div> 	$V = (\text{area of base})(\text{height})$  $V = \pi r^2 h$
<div>Sphere</div> 	$V = \frac{4}{3}\pi r^3$ or $V = \frac{4\pi r^3}{3}$
<div>Cone</div> 	$V = \frac{(\text{area of base})(\text{height})}{3}$  $V = \frac{1}{3}\pi r^2 h$ or $V = \frac{\pi r^2 h}{3}$

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<div>Square-based pyramid</div> 	$V = \frac{(\text{area of base})(\text{height})}{3}$  $V = \frac{1}{3}b^2 h$ or $V = \frac{b^2 h}{3}$
<div>Rectangular prism</div> 	$V = (\text{area of base})(\text{height})$  $V = lwh$
<div>Triangular prism</div> 	$V = (\text{area of base})(\text{height})$  $V = \frac{1}{2}bh h$ or $V = \frac{bh h}{2}$

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